MEETING MINUTES (FINAL)

CITY OF TUCSON HABITAT CONSERVATION PLAN
Technical Advisory Committee
Wednesday, June 6, 2007, 1pm to 4pm
US Fish and Wildlife Service Office
Tucson, Arizona

ATTENDEES

City of Tucson Technical Advisory Committee members present:
Rich Glinski (retired Arizona Game and Fish), Dennis Abbate (Arizona Game and Fish Department), Ries Lindley (Tucson Water), Trevor Hare (Sky Island Alliance), Linwood Smith (EPG, Inc), Marit Alanen (US Fish and Wildlife Service)

Other Attendees present:
Leslie Liberti, (City of Tucson – Office of Conservation and Sustainable Development), Ann Audrey (City of Tucson – Office of Conservation and Sustainable Development), David Jacobs (Arizona Attorney General's Office - Arizona State Land Department), Cathy Crawford (Arizona Game and Fish)

1. Minutes
May 2 meeting minutes were sent out for review. Ralph from Tucson Water emailed comments noting that PAG sets the regional standard for population data. He also noted that in reality, population growth is always different from projections. No other members had comments, so minutes were accepted with those changes.

2. Updates
The US Army Corps Engineers (Corps) restoration staff met this week with local sponsors (Pima Co and City of Tucson) regarding the El Rio Medio reach of the river (Congress to Prince) to determine inputs to the Hydrogeomorphic model (HGM) for that reach. The Corps is conducting a feasibility study on restoration alternatives for this reach. The Grass Roots Alternative developed through the TAC for the El Rio Medio reach has been included as an alternative for restoration along with around 25 other alternatives developed by the Corps and the local sponsors. The Grass Roots Alternative includes options both with and without in-channel recharge.

The US Environmental Protection Agency (USEPA) and the Corps regulatory division published new guidance on how intermittent watercourses should be dealt with under the Clean Water Act, section 404 permit program. The guidance specifies that intermittent watercourses need to have a significant nexus shown between the intermittent stream or wetland and a traditional waterway in order to be protected under Section 404. It remains to be seen how this will affect the Corp's decisions about jurisdictional delineations of watercourses in and around Tucson, where almost all watercourses are ephemeral or intermittent.

The Office of Conservation and Sustainable Development (OCSD) reported to Tucson Mayor and Council on the first 6-month period of implementation of the revised development standards for watercourse protection. Per this report, minor adjustments will be made to clarify requirements of the Environmental Resources Report and to carry recommendations from pre-submittal conferences through the development review process.

In conjunction with this, the City is developing an in-lieu mitigation program to allow fees to be paid in some cases to mitigate for the loss of riparian habitat. An ad hoc advisory committee composed of representatives from the Resource Planning and Advisory Committee (RPAC), Landscape Advisory Committee (LAC), Stormwater Advisory Committee (SAC), and the Habitat Conservation Plan Technical Advisory Committee (HCP TAC) will be assembled to provide input on this program. Linwood will serve on this ad hoc committee representing both SAC and the HCP TAC.

On June 4, a field trip was conducted with Mayor Bob Walkup, Council office representatives, City development review staff, City OCSD staff, and development representatives to address issues about watercourse regulations. The Mayor noted that he favors the City providing incentives for wash improvements, including potentially providing some financial support for this.

On October 31, OCSD and the University of Arizona (UA) will have a community organization-based sustainability forum at the UA. The forum will identify the issues Tucson faces regarding sustainability and the network of groups who have applicable resources to address these issues. On a similar topic, Pima County is hiring a staff member to address green building practices in the County.

3. Southlands Discussion

Leslie presented maps to start the discussion of possible habitat conservation strategies in the Southlands. The maps showed species habitat areas, major planned developments, paddles for Tucson International Airport (TIA) and Davis Monthan Air Force Base (DM), transportation planning areas, and other key conservation and land use elements. Several TAC members commented on the maps. Trevor noted that Airport Wash was on airport land, the City has provided comments on NEPA for airport expansion plans, and the City leases land to DM. He commented that the City tends to relinquish control of land elements in these lease arrangement. The map also includes existing water and sewer infrastructure. Ries noted Tucson Water (TW) has wells outside the HCP planning area that are outside City limits to the south, but TW does not serve Sahuarita with water.

Population density estimates from Pima Association of Governments (PAG) were mapped showing population densities. The highest densities are shown around Swan Southlands and Corona de Tucson. These areas are on the west side of the HCP planning area, and on the northwest part of the upper Southlands area, respectively. Most of this land is owned by the state. In response to a question about how Arizona State Land Department (ASLD) estimates future population, David Jacobs said ASLD doesn't necessarily parallel PAG estimates. State data is used in PAGs estimates. Leslie said a map was generated several years ago showing southlands

as a major growth area in Pima County, and there is a lot of growth pressure around Los Reales Landfill right now, in part because housing prices are so high elsewhere.

Leslie led a brainstorm session regarding conservation strategies for the Southlands. She said there could be a continuum of conservation measures that ranged from a reserve system at the most restrictive to less restrictive measures based on applying existing ordinances as the protection mechanism. TAC members then discussed a wide ranges of issues and options for conservation strategies, as summarized below.

Even though there could be commercial development in the TIA and DM paddle areas, these could serve as burrowing owl habitat and could have washes preserved, and/or enhanced, using runoff water from hardscape. Detention basins can also function as habitat, and upland areas adjacent to washes could be preserved.

Parks range from large regional parks to small community parks. The TAC could look at the placement of parks and park planning efforts that maximize habitat. Some parks have natural open space components that could serve as habitat. Columbus Park on the Santa Cruz River has manicured space and open space. The Denver park system is designed for both people and wildlife. Conversion of nonnative plants in existing parks to native plants could occur over time using species that are not spiny and that provide good wildlife habitat, though wildlife will also use nonnative trees that have appropriate structure. Controlling invasive nonnative plants in parks should be a priority, since in some cases runoff from parks flows to washes.

City cluster development options could be applied to reduce land impacts in areas where planned density is moderate, such as the south and east areas of the Southlands. **Cathy will send the citation for a report on the implications of cluster development for wildlife.** The role of large lots should be considered. From the perspective of ASLD, David said cluster development provides more options, which bidders sometimes prefer. But he noted large lots also have value. One benefit of cluster developments is that infrastructure is also clustered, resulting in less impact to surrounding land. In contrast, large lots result in more impact from infrastructure elements (lights, utilities, etc). There should be some way to mitigate for these infrastructure impacts.

Marit noted that FWS might consider lands in common ownership as elements of habitat planning. Large lots with large backyards cannot be controlled the way common areas can be. She noted that FWS does not have any recommendations for the size of open space in common areas. Characteristics of open space should include being next to washes, and/or contiguous with other open spaces.

In regard to the high quality breeding habitat for pygmy owl in the northwest part of Tucson, cluster development areas there result in completely impacted habitat within the development area. Large lot development in contrast retains some land that is reasonable habitat. It was noted that the Southlands is dispersal habitat rather then higher quality breeding habitat.

The question of whether the pale Townsend’s big eared bat (PTBB) would be benefited by large lot development vs cluster development was also raised. The impacts, and appropriate

specifications of cluster development on wildlife are not known. The location of clustering is key, and would be most beneficial if clustering was not placed in good habitat areas. Uplands are easier to develop then areas with riparian habitat, but PPC is found in upland areas.

Development patterns would need to be determined on a site-by-site basis. Developers could be provided with multiple options for maintaining a certain area of habitat. These options would include large lots and cluster development. While we can't say what percent of the Southlands should beneficially be developed as cluster rather than large lots, possibly rankings could be developed that indicate habitat value for different development approaches.

Members noted that some areas of the Southlands are already difficult to develop due to washes and other factors. The City's watercourse protection ordinances and standards will protect the 100-year floodplain in many cases, but protection is dependent on riparian vegetation being present. If there is no riparian vegetation, there is currently no protection.

Tucson Parks and Recreation Department and Pima County have plans for trails in their jurisdictions. These trails typically follow washes, can be quite wide, and are usually landscaped. Members of the TAC discussed trails saying while trails can have wildlife impacts, they do bring people into contact with habitat, which increases awareness and may induce a desire to protect the habitat. Trails keep impacts to a defined area compared to people walking around riparian areas with no trails. Parks-related plantings can also enhance habitat, and there will be times when people aren't using trails actively and wildlife can use these areas. Public facilities must have some portion that is ADA compliant. **OCSD will get maps of the trails plans to overly on the Southlands map.**

Linwood noted that what is most important for PTBB is native vegetation including mesquites and palo verdes, and basic plant diversity. The question of whether there was a minimum patch size that bats need that could be set aside lead to the concept of whether a refugia could be created that could support a higher density of species. Refugia would be smaller then a reserve but could be enhanced more. Aligning multiple refugia as a series of stop-over points might be a useful strategy. Trevor noted the importance of preserving high-density tortoise habitat areas such as caliche caves along the Pantano Wash, and said these would ideally become refugia.

The issue of set asides, similar to what Pima County uses, was raised. A gross scale could be established for set asides, then guidance could be provided on a parcel-specific basis. Trevor suggested an 80% set aside for areas along the "L-shaped" area on the south and east of the Southlands. This could then grade back to a 60% and 40% set aside as it goes north and west. The HAMP has an open space set-aside of around 30%, including washes and buffers around washes, and also including linear parks. Existing roadways could serve as boundaries for different set-aside percentages. There could be two zones of set aside percentages, and guidance on how to interfaces between these 2 zones.

There are already developments going into Southland areas that would be suggested higher percent set-aside areas. These should be calculated into total allowed development for this area. The existing Conservation Land system (CLS) does not cover a large part of the Southlands. The Pima County Science Technical Advisory Committee (STAC) did not have 5 species to consider

in the Southlands area, so this area was not considered as high a priority as other areas in Pima County. However, this is important habitat for the cacti. The important corridor shown on the CLS map is found in the “L shape” in the south and east Southlands. Discussion of whether preserving 80% of the “L shape” is justified led to comments that there have been no pygmy owl detections in this area, but that the area has not been widely surveyed. The issues are whether this should be preserved as a corridor for pygmy owls and additionally for pollinator bees for cacti.

Trevor recommended striving for 80% preservation depending on if specific sites have certain species or habitat characteristics (He also noted that he would like to continue conversations about the particular percentage amounts). Leslie noted the importance of certainty in going to the development community with preservation requirements. In the discussion that followed, it was suggested a map could be developed showing areas important to species so potential land buyers and developers know what they are going to encounter if they buy land and propose development. If PTBB is the important species and its known that they can use landscape plants, then developers could use this information when developing the land. This tells developers what they need to be sensitive to, but there still needs to be a number associated with what must be preserved. If specific digitized habitat information was provided for species, developers could be provided with the allowed percent development for distinct areas, and guidance for specific species.

Leslie suggested that for land outside the CLS the principles used for the Houghton Area Master Plan (HAMP) could be applied since HAMP guidelines seem acceptable to developers. She noted that the County prescribes the protected areas for watercourse protection while the City has developers do the mapping of the protected areas. The City could do the detailed mapping for developers to provide more certainty about what needs to be protected. To address cacti, the HAMP elements can be reviewed to see what washes were buffered and the areas, and use that process outside the CLS. For the area inside the CLS, higher level of protection could be applied. The HCP could become the basis for delineating protection corridors around washes based on structure and function in additional to the presence of vegetation. Trevor suggested large areas of land need to be identified that the City can buy to create a mitigation bank for cactus.

In further discussion about PTBB, the issue of the size of buffer around riparian areas was raised. Scott Richardson (FWS) said in a previous meeting that he was comfortable with the 50-foot buffer previously mapped. Linwood emphasized that the edge where upland habitat meets the wash is what is critical. The more foliage along the wash and the better the cover, the larger the biomass of moths, larvae and other species the bats feed on, which improves habitat for PTBB. If there is a conservation system with a 25- to 50-foot buffer that prevents encroachment into the wash, then bats will benefit. Bats fly outside the washes or over the plants in the wash where moths and larvae are present in higher density. The 50-foot buffer protects the area where bats are foraging.

Linwood noted the LLNB bats avoided the urban areas when collared last year. But the bats came into his feeder readily in spite of lights and human habitation. Linwood thinks that last year the agaves did not bloom at higher elevations since he observed them in August at his feeder.

In terms of protecting the watercourses that provide habitat, existing ordinances provide some protection, the HAMP approach can protects other areas, and the CLS preservation area is another level of consideration. A consolidated wash ordinance could also be considered. After looking as what will minimally be protected, areas with additional needs for protection can be defined.

Leslie noted that the Native Plant Preservation Ordinance (NPPO) protects individual plants, though many of these can be moved. For Pima pineapple cactus (PPC), the NPPO has options for leaving them in place on site, transplanting them on site, or transplanting them off site. Trevor commented that they do not survive transplanting. Discussion followed on the success or lack of success with transplanting; concluding with Marit saying FWS prefers that people buy mitigation credits for PPC mitigation banks. In terms of the mitigation bank area that would need to be preserved, Trevor suggested one large area in the center would be needed, supplemented by 1 hectare or 1 acre areas located periodically along a line moving away from the preserve area.

There was a question as to whether PPC mitigation bank areas could also function as burrowing owl management areas (BOMAs). David noted ASLD is considering getting into mitigation banking, but has not yet made a final determination about it. Leslie posed the question of whether a portion of state land could be preserved in return for some sort of density transfer for development, or some similar incentive. David said ASLD could entertain a dialog on this. The size of the preservation area would need to be determined, and should be based on the hard data we have for the cactus.

There was discussion about how much data is needed to justify the level of protection and location of species other then cactus. It could take years to get all the needed data, but in the meantime it is important to do no harm. Some land decisions will be made in the future when more data could become available. Part of the solution will include where future city parks are located and what they look like. The TAC could provide recommendations on where to locate City parks, (e.g. between two washes to bridge the riparian habitat) and specify a percent that should be natural space. Private developments also create parks. The TAC could recommend that some portion of these be open space.

Marit noted that smaller developments cannot always set aside the needed amount of open land due to the small lot sizes. Leslie pointed out that the whole Southlands are zoned “master planned community,” without other underlying hard zoning. There is a park impact fee levied to support park development by the City, and large development sites are required to create private parks within the development boundary. The park trail systems would interlink with other parks and the larger region. The City has equations to determine the size and area of private parks and associated regional parks needed in association with development. Multipurpose detention basins could play a role in habitat development. Locating these adjacent to washes is generally acceptable to developers. These can be planting and still have designated sediment clean out areas.

In terms of setting aside land for conservation and parks, the City can work out agreements with ASLD that bind developers who subsequently buy state land. On private land there are more limitations on the City’s leverage. For areas outside current City limits, there may be some

leverage if lands are annexed into the City. Development agreements created at the time of annexation or rezoning can also provide leverage. Some areas might be afforded more protection by being left in the County if they are inside the CLS area.

The potential affects of Southlands development on Cienega Creek were brought up because part of the Cienega Creek watershed is within the Southland's boundary. Opinions varied as to whether sediment releases created by development might have negative impacts due to water quality degradation, or be neutral since development tends to result in long term reductions in sediment releases and ADEQ regulates sediment releases from development. Desert fish are also used to exposure to high sediment water. **OCSD will prepare a map showing the Cienega Creek watershed boundary overlaid on the Southlands boundary.** Contaminants could runoff to the creek from development, material mining, septic tanks, and other sources. Monitoring and testing need to be done. **OCSD check with Julia Fonseca about her concerns and ideas on this.**

Detention basins can be used as habitat, but should not hold standing water for any length of time due to mosquito concerns. Tucson Water is not averse to recharging in the Southlands area in the future. Enriched resources areas could provide more resources for special species. Possible options and design approaches should be examined that could accomplish recharge and provide resource benefits. There will need to be a large-scale wastewater treatment plant in this area. Reclaimed water is not currently available here.

4. Topics at upcoming meetings
July 18 is the next meeting. Future meetings will be at USFWS. At this meeting the agenda will include a verbal report on the Lee Moore Wash Basin Study by Pima County staff. Preliminary maps will be prepared showing the HAMP conservation approach, the CLS, private property, City land, State land, the Cienega Creek watershed boundary, and the current County and City-planned park and trails. In addition, information will be provided on parks, including their standards for new acquisitions, their ability to acquire acreage, and the 10-year strategic plan for City Park and Recreation.

TAC members should plan to meet every two weeks in the fall. TAC members would like an update from Mima Falk, FWS, on the latest information on cacti, their survival, reserves set up for them, and other relevant information.

5. Call to audience
(no audience present)

6. Adjournment